

Applicants: Kiran K. Chada et al.
Serial No.: 10/630,423
Filed : July 29, 2003
Page 2 of 10

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of identifying genes that are over-expressed in adipocytes of white adipose tissue (WAT) from a first animal as compared to preadipocytes in WAT non-adipose tissue from a second animal comprising performing differential gene expression analysis between the white adipose tissue [([)]WAT[([)]] ~~or stromal vascular tissue (SVT)~~ of the first animal and the WAT of the second animal wherein the animals are any two different mice selected from the group consisting of wild type, a HMGI-C -/- genotype mouse , ob/ob, and a HMGI-C -/- ob/ob genotype mouse mice.
2. (Canceled).
3. (Canceled).
4. (Withdrawn) The method of claim 1, wherein the differential gene expression analysis is performed between the WAT of wild-type mice and the WAT of HMGI-C -/- mice.
5. (Canceled).
6. (Withdrawn) The method of claim 1, wherein the differential gene expression analysis is performed between the WAT of ob/ob mice and the WAT of HMGI-C -/- mice.
7. (Withdrawn) The method of claim 1, wherein the differential

Applicants: Kiran K. Chada et al.
Serial No.: 10/630,423
Filed : July 29, 2003
Page 3 of 10

gene expression analysis is performed between the WAT of wild-type mice and the SVT of wild-type mice.

8. (Currently Amended) The method of claim 1 ~~any one of claims 1-7~~ wherein the differential gene expression analysis is performed using an Affymetrix GeneChip® system.
9. (Original) The method of claim 8, wherein the Affymetrix GeneChip® system utilizes the MG-U74 chip.
10. (Withdrawn) A nucleotide sequence identified by the method of any one of claims 1-9.
11. (Withdrawn) The nucleotide sequence of claim 10 having the sequence set forth in any one of SEQ.ID.NO. 1-279.
12. (Withdrawn) An isolated polynucleotide comprising
 - a) a nucleotide sequence of any one of SEQ ID NOs: 86, 87, 93, 96, 115, 116, 117, 135, 145, 148, 151, 160, 172, 179, 180, 191, 192, 201, 223, 224, 229, 236, 246, 255, 256, 263, 264, 267, 268, 276 or 277, or any one of SEQ ID NOs: 84, 85, 88, 97, 98, 99, 100, 105, 106, 107, 108, 109, 110, 111, 112, 115, 116, 117, 122, 123, 124, 125, 128, 129, 130, 131, 132, 133, 138, 139, 149, 150, 175, 176, 177, 178, 181, 182, 183, 184, 187, 188, 189, 190, 199, 200, 210, 211, 214, 215, 216, 217, 218, 219, 220, 221, 222, 227, 228, 232, 233, 239, 240, 241, 242, 243, 244, 245, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 259, 260, 261, 262, 268, 272 or 273;
 - b) a nucleotide sequence coding for the same polypeptide as that encoded by the nucleic acid of part a);
 - c) a nucleotide sequence that has at least 90% identity over the entire coding region to the nucleotide sequence of part a); or

Applicants: Kiran K. Chada et al.
Serial No.: 10/630,423
Filed : July 29, 2003
Page 4 of 10

c) a nucleotide sequence complementary to the isolated nucleic acid molecule.

13. (Withdrawn) The isolated polynucleotide of claim 12 comprising the nucleotide sequence of any one of SEQ ID NOs: 86, 87, 93, 96, 115, 116, 117, 135, 145, 148, 151, 160, 172, 179, 180, 191, 192, 201, 223, 224, 229, 236, 246, 255, 256, 263, 264, 267, 268, 276 or 277.
14. (Withdrawn) The isolated polynucleotide of claim 12 or 13 comprising the nucleotide sequence of any one of SEQ ID NOs: 84, 85, 88, 97, 98, 99, 100, 105, 106, 107, 108, 109, 110, 111, 112, 115, 116, 117, 122, 123, 124, 125, 128, 129, 130, 131, 132, 133, 138, 139, 149, 150, 175, 176, 177, 178, 181, 182, 183, 184, 187, 188, 189, 190, 199, 200, 210, 211, 214, 215, 216, 217, 218, 219, 220, 221, 222, 227, 228, 232, 233, 239, 240, 241, 242, 243, 244, 245, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 259, 260, 261, 262, 268, 272 or 273.
15. (Withdrawn) An isolated polynucleotide of claim 12 comprising a nucleotide sequence coding for the same polypeptide as that encoded by any one of SEQ ID NOs: 86, 87, 93, 96, 115, 116, 117, 135, 145, 148, 151, 160, 172, 179, 180, 191, 192, 201, 223, 224, 229, 236, 246, 255, 256, 263, 264, 267, 268, 276 or 277, or any one of SEQ ID NOs: 84, 85, 88, 97, 98, 99, 100, 105, 106, 107, 108, 109, 110, 111, 112, 115, 116, 117, 122, 123, 124, 125, 128, 129, 130, 131, 132, 133, 138, 139, 149, 150, 175, 176, 177, 178, 181, 182, 183, 184, 187, 188, 189, 190, 199, 200, 210, 211, 214, 215, 216, 217, 218, 219, 220, 221, 222, 227, 228, 232, 233, 239, 240, 241, 242, 243, 244, 245, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 259, 260, 261, 262, 268, 272 or 273.

Applicants: Kiran K. Chada et al.
Serial No.: 10/630,423
Filed : July 29, 2003
Page 5 of 10

16. (Canceled)

47. (Withdrawn) An isolated polynucleotide comprising

- a) a nucleotide sequence of SEQ ID NO:103;
- b) a nucleotide sequence coding for the polypeptide of SEQ.ID.NO. 603;
- c) a nucleotide sequence that has at least 91% identity over its entire length to a nucleotide sequence encoding the sFRP-5 polypeptide of SEQ ID NO:603 said identity being over the entire region encoding SEQ ID NO:603; or
- d) a nucleotide sequence complementary to the isolated nucleic acid molecule.

48-100. (Canceled)

101. (Withdrawn) A recombinant host cell produced by a method of claim 91 or a membrane thereof expressing an npr3 polypeptide.

102. (Withdrawn) A bioassay for identifying compounds which prevent adipose accumulation, the bioassay comprising:
(a) exposing a eukaryotic cell that expresses a heterologous npr3 receptor to at least one compound whose ability to modulate the activity of the receptor is sought to be determined; and thereafter
(b) monitoring the cells for changes in activity, wherein change in activity identify a compound as a modulator of human npr3 receptor.

103. (Withdrawn) A method for screening for compounds that modulate a target protein, wherein the target protein is npr3 and comprises a sequence that has greater than 90% amino acid identity to SEQ ID NO:778 as measured using a sequence comparison algorithm, the method comprising the steps of

Applicants: Kiran K. Chada et al.
Serial No.: 10/630,423
Filed : July 29, 2003
Page 6 of 10

- a) contacting the target protein with a candidate agent at a first concentration and determining a level of activity of the target protein; and
- b) contacting the target protein with a candidate agent at a second concentration and determining a level of activity of the target protein; wherein a difference between the level of activity of the target protein contacted with the first concentration of the candidate agent and the level of activity of the target protein contacted with the second concentration of the candidate agent indicates that the candidate agent modulates the activity of the target protein.

104-115. (Canceled)

116. (Withdrawn) A compound identified by the method of any one of claims 102-115.